

ABSTRACT

A system and method manages Radio Access Network (RAN) resources to service packet data transmissions at Service Quality Levels (SQL) commensurate with packet data network SQLs. A Packet Data Serving Node (PDSN) receives a data packet from a coupled packet data network. The data packet is directed toward a Mobile Station (MS) serviced by the RAN and includes a packet SQL indicator that indicates the level of service provided by the data packet network. A corresponding set of RAN resources is allocated to meet the packet SQL indicator. If the set of RAN resources cannot be allocated, the data packet SQL indicator is remarked accordingly. In another operation, the BSC receives a data packet from a MS serviced by the RAN. The data packet is intended for a coupled packet data network and includes a packet SQL indicator. The BSC first determines a set of allocated RAN resources that are servicing the transmission of the data packet to the packet data network. The BSC then maps the allocated set of RAN resources to a RAN service quality level indicator. If the data packet SQL indicator is incorrectly marked, it is remarked by the PDSN. These operation provide support for both specific SQL operations and differential SQL operations.